Gupta et al
09/378,596

		EAST SEARCH	4/11/04
	SIES	Search String	Databases
7	9	(("6629312") or ("6457173") or ("6490716")).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
7	-	5355491.PN.	USPAT
L 3	-	6226776.PN.	USPAT
4	-	6292938.PN.	USPAT
L 5	-	6463582.PN.	USPAT
- Pe	-	6226776.PN.	USPAT
L7	_	6279100.PN.	USPAT
F8	2		USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
		(vliw or (very adj long adj instruction)) and (mutual\$4 and exclusiv\$5) and	
61	148	parallel\$5	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
Results of search set L8:	arch se	it L8;	
		Pipeline replay support for multi-cycle operations wherein all VLIW instructions	
US 6604188 B1	Ξ	are flushed upon detection of a multi-cycle atom operation in a VLIW instruction	
US 6457173 B1	Σ	Automatic design of VLIW instruction formats Guard bits in a VIIW instruction control routing of operations to functional units	20020924 717/149
US 5974537 A		allowing two issue slots to specify the same functional unit	19991026 712/215
US 5333280 A		Parallel pipelined instruction processing system for very long instruction word	
		Processor of very long instruction word system, has primary and secondary	
JP 2001306321 A	4 F	conditions which are not mutually exclusive relationships	20011102
Results of search set L9:	arch se	1 <u>t L9:</u>	
US 6702417 B2	2	Printing cartridge with capacitive sensor identification	
US 6697076 B1	Σ.	Method and apparatus for address re-mapping	
US 6693643 B1	Σ.	Method and apparatus for color space conversion	
US 6675286 B1	Ξ.	Multimedia instruction set for wide data paths	
US 6665454 B1	Σ,	Dot adjacency compensation in optical storage systems using ink dots	
US 6651222 B2	<u>ب</u>	Automatic design of VLIW processors	
6644771	Ξ.	Printing cartridge with radio frequency identification	
US 6643745 B1	Ξ	Method and apparatus for prefetching data into cache	20031104 711/138

US 6636216 B1	Digital image warping system	20031021	345/427
US 6631514 B1 US 6629312 B1 US 6629001 B1 US 6618117 B2 US 6607888 B2		20031007 20030930 20030930 20030909 20030819	717/137 717/136 700/94 355/18 435/6
	Pipeline replay support for multi-excle operations wherein all VLIW instructions		
US 6604188 B1	are flushed upon detection of a multi-cycle atom operation in a VLIW instruction	20030805	712/24
US 6588009 B1	Method and apparatus for compiling source code using symbolic execution	20030701	717/161
US 6581191 B1	Processing circuit and metrico for variable-length coding and decoding Hardware debugging in a hardware description language	20030617	34 I/6/ 716/4
US 6581187 B2	Automatic design of VLIW processors	20030617	716/1
	Method and apparatus for variable length decoding and encoding of video		
US 6573846 B1	streams	20030603	341/67
US 6565181 B2		20030520	347/19
	Method for scheduling threads in a multithreaded processor	20030415	718/104
	Printing cartridge with an integrated circuit device	20030415	347/19
US 6542645 B1	Adaptive tracking of dots in optical storage system using ink dots	20030401	382/254
US 6539543 B1	Method and apparatus for compiling source code by flattening hierarchies	20030325	717/161
US 6507947 B1	Programmatic synthesis of processor element arrays	20030114	717/160
US 6507293 B2	Processing circuit and method for variable-length coding and decoding	20030114	341/67
US 6496919 B1	Data processor	20021217	712/24
US 6490716 B1	Automated design of processor instruction units	20021203	716/18
US 6476863 B1	Image transformation means including user interface	20021105	348/231.9
US 6459495 B1	Dot center tracking in optical storage systems using ink dots	20021001	358/520
US 6457173 B1	Automatic design of VLIW instruction formats	20020924	717/149
US 6457073 B2	Methods and apparatus for providing data transfer control	20020924	710/22
6445316	Universal impedance control for wide range loaded signals	20020903	341/120
US 6442525 B1	System for authenticating physical objects	20020827	705/1
US 6438747 B1	Programmatic iteration scheduling for parallel processors	20020820	717/160
US 6431669 B1	Method and apparatus for information storage in a portable print roll	20020813	347/2
US 6416154 B1	Printing cartridge with two dimensional code identification	20020709	347/19
	Target detection for dot region alignment in optical storage systems using ink		
US 6415054 B1	dots	20020702	382/233
	Automated design of processor systems using feedback from internal		
US 6408428 B1	measurements of candidate systems Virtualization excton including a virtual machine manifor for a commuter with a	20020618	716/17
US 6397242 B1	segmented architecture	20020528	718/1
US 6385757 B1	Auto design of VLIW processors	20020507	716/1

326/30 717/161 712/221 355/18 355/18 396/284	708/654 712/24 355/18 235/454	712/217	717/156 712/42 710/22 435/6 347/86	712/227 712/22 718/102 712/227 702/186
20020430 20020416 20020416 20020326 20020312 20020312	20020226 20011120 20011113 20011113	20011106	20010828 20010828 20010710 20010424 20010417	20010227 20010130 20010130 20001219 200001114 20000829
Impedance control for wide range loaded signals using distributed methodology Programmatic method for reducing cost of control in parallel processes Processor with conditional execution of every instruction Authentication system for camera print rolls Print media roll and ink replaceable cartridge Prints remaining indicating for camera with variable length print capability Impedance control system for a center tapped termination bus	Division unit in a processor using a piece-wise quadratic approximation technique 20020226 Methods and apparatus for scalable instruction set architecture with dynamic compact instructions Utilization of image tiling effects in photographs Encoded data card reading system Machanism for freeing registers on processors that perform dynamic out of order	execution of instructions using reparation registers Execution of instructions using renaming registers Computer operating process allocating tasks between first and second processors at run time based upon current processor load Method and processor for structuring a multi-instruction computer program in an	internal directed acyclic graph Information processor having duplicate operation flags Methods and apparatus for providing data transfer control Computer-based methods and systems for sequencing of individual nucleic acid molecules Ink and media cartridge with axial ink chambers System for fetching unit instructions and multi instructions from memories of different bit widths and converting unit instructions to multi instructions by adding NOP instructions	Apparatus for sampling instruction execution information in a processor pipeline Microprocessor Microprocessor Devices, methods, systems and software products for coordination of computer main microprocessor and second microprocessor coupled thereto Method and apparatus for sampling multiple potentially concurrent instructions in a processor pipeline Apparatus for sampling path history in a processor pipeline Method for estimating statistics of properties of interactions processed by a processor pipeline Method for managing an instruction execution pipeline during debugging of a data processing system
US 6380758 B1 US 6374403 B1 US 6374346 B1 US 6362869 B1 US 6352868 B1 US 6356715 B1 US 6356105 B1	US 6351760 B1 US 6321322 B1 US 6317192 B1 US 6315200 B1	US 6314511 B1 US 6298370 B1	US 6282708 B1 US 6282632 B1 US 6260082 B1 US 6221592 B1 US 6217165 B1	US 6195748 B1 US 6182203 B1 US 6179489 B1 US 6163840 A US 6148396 A US 6119075 A US 6112298 A

US 6105119 A US 6092184 A	Data transfer circuitry, DSP wrapper circuitry and improved processor devices, methods and systems Parallel processing of pipelined instructions having register dependencies	20000815 20000718	711/219 712/218
US 6092180 A	wettoo for measuring raterioles by randomy selected sampling of the instructions while the instruction are executed Method and apparatus for halting a processor and providing state visibility on a	20000718	712/200
US 6081885 A US 6070009 A	pipeline phase basis Method for estimating execution rates of program execution paths	20000627 20000530	712/227 717/130
US 6065106 A US 6055649 A US 6023757 A	Resuming normal execution by restoring without refetching instructions in multiword instruction register interrupted by debug instructions loading and processing Processor test port with scan chains and data streaming Data processor	20000516. 20000425 20000208	712/24 714/30 712/209
US 6016555 A US 6000044 A	Non-intrusive software breakpoints in a processor instruction execution pipeline Apparatus for randomly sampling instructions in a processor pipeline	20000118 19991207	714/35
US 5983336 A	Method and apparatus for packing and unpacking wide instruction word using pointers and masks to shift word syllables to designated execution units groups Guard hits in a VI IM instruction control political of pagastions to the signal units	19991109	712/24
US 5974537 A	allowing two issue slots to specify the same functional unit Maintaining everythmism between a processor pipeling and subsection pipeling.	19991026	712/215
US 5970241 A	Maintaining synchronism between a processor pipeline and subsystem pipelines during debugging of a data processing system. Method and apparatus for processing data in multiple modes in accordance with	19991019	712/227
US 5968160 A	parallelism of program by using cache memory Method for inserting memory prefetch operations based on measured latencies in	19991019	712/14
US 5964867 A US 5949994 A	a program optimizer Dedicated context-cycling computer with timed context	19991012 19990907	712/219 712/228
US 5949439 A	graphics performance Multi-ported and interleaved cache memory supporting multiple simultaneous	19990907	345/503
US 5924117 A	accesses thereto	19990713	711/127
US 5923872 A	Apparatus for sampling instruction operand or result values in a processor pipeline	19990713	712/244
US 5923871 A	Multifunctional execution unit having independently operable adder and multiplier Bus bridge device including data bus of first width for a first processor, memory	19990713	712/221
US 5909559 A US 5890217 A	controller, arbiter circuit and second processor having a different second data width Coherence apparatus for cache of multiprocessor	19990601 19990330	710/307 711/141
US 5883640 A	graphics performance	19990316	345/503

US 5809450 A	Method for estimating statistics of properties of instructions processed by a processor pipeline	19980915	702/186
US 5790874 A	Information processing apparatus for reducing power consumption by minimizing hamming distance between consecutive instruction	19980804	713/320
JS 5787026 A	Method and apparatus for providing memory access in a processor pipeline Method and apparatus for processing data in multiple modes in accordance with	19980728	708/521
US 5784630 A	parallelism of program by using cache memory	19980721	712/30
US 5764951 A	Methods for automatically pipelining loops	19980609	716/1
US 5764943 A	Data path circuitry for processor having multiple instruction pipelines Image compression connession with data flow control and multiple processing	19980609	712/218
US 5699460 A	units	19971216	382/307
	Selective processing and routing of results among processors controlled by decoding instructions using mask value derived from instruction tag and		
US 5682491 A	processor identifier Computer processor with an efficient means of executing mean instructions	19971028	712/209
US 5471593 A	simultaneously	19951128	712/235
	VLIW processor which uses path information generated by a branch control unit		
US 5450556 A	to inhibit operations which are not on a correct path Decoded instruction cache architecture with each instruction field in multiple-	19950912	712/235
US 5442760 A	instruction cache line directly connected to specific functional unit	19950815	712/215
US 533280 A	Parallel pipelined instruction processing system for very long instruction word	19940726	712/241
IS 5329630 A	System and method using double-buffer preview mode	19940712	711/173
US 5056015 A	Architectures for serial or parallel loading of writable control store	19911008	703/27
US 4873630 A	Scientific processor to support a host processor referencing common memory	19891010	712/3
US 20040065738 A1	Data distribution mechanism in the form of ink dots on cards Printing device for use with a printing cartridge having capacitive sensor	20040408	235/454
US 20040061734 A1	identification	20040401	347/19
US 20040056105 A1	Data structure encoded on a surface of an object	20040325	235/494
US 20040051753 A1	Method of identifying printing cartridge characteristics with capacitive sensors	20040318	347/19
US 20040041018 A1	Card having coded data and visible information, for operating a device	20040304	235/375
US 20040030873 A1	Single chip multiprocessing microprocessor having synchronization register file Methods and apparatus for automated generation of abbreviated instruction set	20040212	712/245
US 20040015931 A1	and configurable processor architecture	20040122	717/158
US 20040015773 A1	High speed arithmetic operations for use in turbo decoders	20040122	714/786
US 20040008327 A1	Image printing apparatus including a microcontroller	20040115	355/18
US 20040008262 A1	Offication of color transformation effects in protographs Print roll for use in a camera imaging system	20040115	348/207.2
US 20040004698 A1	Programmable camera system with software interpreter	20040108	355/18

US 20030233642 A1 Sys US 20030233641 A1 Sys Me	System and method for assigning basic blocks to computer control flow paths System and method for merging control flow paths Methods and apparatus for scalable instruction set architecture with dynamic	20031218 20031218	717/156 717/156
US 20030200420 A1 cor Dat		20031023	712/209
US 20030126404 A1 sto US 20030120996 A1 Hig	storage medium High speed add-compare-select operations for use in viterbi decoders	20030703 20030626	712/15 714/795
US 20030117496 A1 Pre US 20030112419 A1 Prii	Preprinted print rolls for postal use in an image processing device Printing cartridge with barcode identification	20030626 20030619	348/207.2 355/18
¥	Methods and apparatus for providing data transfer control	20030424	710/22
20030068185 A1 Prir	Printing cartridge with switch array identification	20030410	400/613
US 20030066061 A1 usi		20030403	717/158
	Data processor	20030403	712/227
US 20030056088 A1 Pro	Processor, compiler and compilation method	20030320	712/214
20030041163 A1 Dat	Data processing architectures	20030227	709/232
US 20030033441 A1 LO	LOADING NAMESPACE AND PROGRAMMING MODEL	20030213	719/315
A1	Caching DAG traces	20021003	712/240
A1	Automatic design of VLIW processors	20020919	716/1
Ā	Automatic design of VLIW processors	20020829	716/17
4	Data processing device with a configurable functional unit	20020627	712/226
20020080335 A1 Prir	Printing cartridge with capacitive sensor identification Mathode and apparatus for contable instruction and architecture with durantic	20020627	355/18
US 20020073299 A1 con		20020613	712/24
	Image sensing apparatus including a microcontroller	20020613	355/18
US 20020061523 A1 Mei	Method for analyzing nucleic acid reactions	20020523	435/6
US 20020033854 A1 Prir	Printing cartridge with pressure sensor array identification	20020321	347/17
US 20020030713 A1 Prir	Printing cartridge with two dimensional code identification	20020314	347/19
20020030712 A1 Prir	Printing cartridge with an integrated circuit device	20020314	347/19
US 20020011943 A1 Pro	Processing circuit and method for variable-length coding and decoding	20020131	341/67
20020010814 A1 Mei ME PEI	Methods and apparatus for providing data transfer control MECHANISM FOR FREEING REGISTERS ON PROCESSORS THAT PERFORM DYNAMIC OUT-OF-ORDER EXECUTION OF INSTRUCTIONS	20020124	710/22
US 20010004755 A1 US	USING RENAMING REGISTERS	20010621	712/217